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UNIVERSITY OF MISSOURI RESEARCH REACTOR

OPERATIONS MONTHLY SUMMARY

April 1996

Prepared by:
Operations Staff

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April 1996

The reactor operated continuously in April with the following exceptions: five shutdowns for scheduled maintenance and refueling. There were no unscheduled shutdowns this month.

Major maintenance items for the month included: replacing the slow speed motor for the intermediate range monitor chart recorder; completing the biennial change-out of control blade offset mechanism "B"; replacing the voltage regulator on the wide range monitor; removing experimental cans from beamports "E" and "F", and installing new collimators with new fill and drain lines.

OPERATION SUMMARY

HOURS OPERATED THIS PERIOD	627
TOTAL HOURS OPERATED	195,512
HOURS AT FULL POWER THIS PERIOD	624
TOTAL HOURS AT FULL POWER	192,503
INTEGRATED POWER THIS PERIOD	260 MWD
TOTAL INTEGRATED POWER	74,358 MWD

MAINTENANCE ACTIVITIES

4/1/96 Refueled - removed core 96-15, loaded core 96-16.

4/8/96 Refueled - removed core 96-16, loaded core 96-17. Replaced slow speed motor in IRM chart. Biennial change-out of offset mechanism "B".

4/15/96 Refueled - removed core 96-12, loaded core 96-18. Replaced voltage regulator on wide range monitor.

4/22/96 Refueled - removed core 96-13, loaded core 96-19.

4/29/96 Refueled - removed core 96-19, loaded core 96-20. Removed experimental cans from beamports "E" and "F".



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 2, 1996

Dr. James J. Rhyne, Director
Research Reactor Facility
University of Missouri-Columbia
Research Park
Columbia, Missouri 65211

SUBJECT: UNIVERSITY OF MISSOURI AT COLUMBIA RESEARCH REACTOR EMERGENCY PLAN -
REVIEW OF PLAN CHANGES AND REQUEST FOR ADDITIONAL INFORMATION
(TAC NO. M94431)

Dear Dr. Rhyne:

We are continuing our review of your changes to the University of Missouri at Columbia Research Reactor Emergency Plan that you submitted on December 20, 1995, in response to NRC Memoranda and Orders CLI-95-01 dated February 28, 1995, CLI-95-08 dated June 22, 1995, CLI-95-11 dated August 22, 1995, and CLI-95-17 dated December 14, 1995. The staff of the U.S. Nuclear Regulatory Commission (NRC) focused our review on the areas listed below of the emergency plan where changes were specifically ordered by the Commission.

1. The University is directed either (1) to require evacuation of all persons (except emergency personnel) to a point at least 150 meters from the Alpha Lab whenever an Alert is declared as a result of a fire involving TRUMP-S materials or (2) to provide the NRC staff sufficient information to determine that the existing Emergency Plan and procedures (or any proposed modifications of the Plan and procedures) adequately protect the public within the site boundary in the case of a fire involving TRUMP-S materials (CLI-95-11).
2. The Emergency Plan's classification scheme must indicate that the current "NOUE" action level 5 applies only to a reactor fire, and not to a laboratory fire involving nuclear materials (CLI-95-01).
3. The classification scheme must clarify that either a "prolonged fire or explosion within the facility that can result in a release of radioactivity that would cause exposures of the public or staff approaching 1 rem whole body" or a "significant release possibly approaching EPA PAG levels" of such materials would constitute a "Site Area Emergency" (CLI-95-01 as modified by CLI-95-08).

For the first issue above, the University has chosen the first option to evacuate persons to a point of at least 150 meters.

Our review confirms that the revisions to the University of Missouri at Columbia Research Reactor Emergency Plan meet the orders and are acceptable as written for items 1 and 2 above.

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Dr. James J. Rhyne

- 2 -

April 2, 1996

During our review of item 3 above, questions have arisen for which we require additional information and clarification. The radiological EAL for the Site Area Emergency classification for the TRUMP-S Project refers to a fire involving more than 3 grams of TRUMP-S materials. The order identifies the event or cause for the Site Area Emergency as a "prolonged fire or explosion within the facility that can result in a release of radioactivity that would cause exposures of the public or staff approaching 1 rem whole body" or a "significant release possibly approaching EPA PAG levels."

Please provide the following information.

1. Demonstrate that the EAL in the revised Emergency Plan meets the intent of the Commission.
2. Provide the technical basis or the analysis to show that 3 grams of TRUMP-S materials dispersed in a fire will result in a exposure of 1 rem whole body or approaching EPA PAG levels.

Please provide responses to the above request for additional information within 30 days of the date of this letter. In accordance with 10 CFR 50.30(b), your response must be executed in a signed original under oath or affirmation. Following receipt of the additional information, we will continue our evaluation of your request.

This requirement affects nine or fewer respondents and, therefore, is not subject to Office of Management and Budget review under P. L. 96-511.

If you have any questions regarding this review, please contact me at (301) 415-1127.

Sincerely,

Original signed by:

Alexander Adams, Jr., Senior Project Manager
Non-Power Reactors and Decommissioning
Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket No. 50-186

cc: See next page

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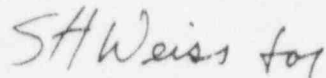
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Docket No. 50-186

cc: See next page

University of Missouri
at Columbia

Docket No. 50-186

cc:

University of Missouri
Associate Director
Research Reactor Facility
Columbia, Missouri 65201

A-95 Coordinator
Division of Planning
Office of Administration
P. O. Box 809, State Capitol Bldg.
Jefferson City, Missouri 65101